



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/815,769	03/23/2001	John Kroeker	EZLK-002	5844

7590 04/29/2004  
Toby H. Kusmer  
McDermott, Will & Emery  
28 State Street  
Boston, MA 02109

EXAMINER

ABEBE/DANIEL DEMELASH

ART UNIT	PAPER NUMBER
----------	--------------

2655

DATE MAILED: 04/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/815,769

Applicant(s)

KROEKER ET AL.

Examiner

Daniel D Abebe

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuboi et al. (5,457,768).

As to claim 1, Tsuboi teaches a phonetic data ("reference vectors", including words or phonemes) processing system (Fig.17A, 22), comprising;

A context free grammar/dictionary stored in memory (4) comprising syntactic and semantic information;

A "phonetic"(word) estimating module (2) for producing a word list/seires, where each word of the word list/series has at least four data items, "start point", "end point", "likelihood" and "word name".

A word processing module (3), comprising a word searcher for generating sequences of word candidates from the grammar dictionary module, and generating sequences of word lattice; and

A syntactic/semantic analysis unit including sentence candidate analyzer and candidate processing unit, for combining and generating sequence of the words and sentence and sub-sentence candidate generating unit for generating a plurality of semantic expressions using a syntactic/semantic parse table/tree (Figs.6, 10a-10b and 20).

As to claims 2-3, Tsuboi teaches set of words and where "The syntactic rewrite rules are written according to context free grammar or regular grammar. The grammar rules shown in FIG. 4 are augmented to treat semantic data other than data relating to parts of speech, and the expanded portions contain processing procedures for semantic analysis" (Col.6, lines 35-36).

As to claims 4-6 Tsuboi teaches where The recognition result of the speech recognition unit 2 is sent to a syntactic/semantic analysis unit 3 in the form of a series of temporally discrete words (i.e. word lattice). Each word of the word series has at least four data items, "start point", "end point", "likelihood" and "word name". The data item "likelihood", which indicates the possibility of words, may include "distance", "similarity" and "probability". Using the likelihood, the syntactic and semantic analysis, described below, is performed (Col.5, lines 3-11).

Claims 7-18 are analogous to claims 1-8 and are rejected for the fore going reasons by Takebayashi.

As to claim 19, Tsuboi teaches a syntactic/semantic tree (Fig.1b, 20).

As to claims 20-22, Tsuboi teaches a semantic expression evaluation (Fig.17a).

With respect to claims 23-30, Tsuboi teaches a "word" searcher (3) as addressed above, coupled to a "grammar/dictionary" storage (4) also described above and configure to receive the phonetic stream of data and to generate series of words as function of syntactic information derived from the "grammar/dictionary" database (Fig.17A).

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

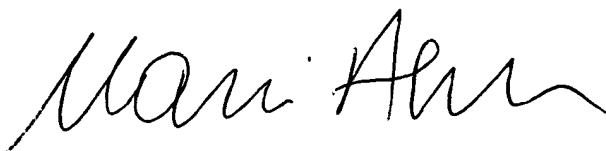
***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Heidorn et al. (5,966,686) see Fig.26, 30c.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel D Abebe whose telephone number is 703-308-5543. The examiner can normally be reached on monday-friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 703-305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



April 26, 2004